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GENERAL DISCUSSION ON PROGRESS IN THE IMPLEMENTATION OF AGENDA 21, FOCUSING ON THE CROSS-SECTORAL COMPONENTS OF AGENDA 21 AND THE CRITICAL ELEMENTS OF SUSTAINABILITY

Overview of cross-sectoral issues

Report of the Secretary-General

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INTRODUCTION

1. The Commission on Sustainable Development, at its first session, requested the Secretary-General to prepare an annual overview report on progress made in the implementation of Agenda 21. Furthermore, the Commission requested that the report focus on the cross-sectoral components of Agenda 21 and the critical elements of sustainability, and that they contain an analysis of progress made, the main trends and the main problems countries face in the implementation of Agenda 21 (E/1993/25/Add.1, para. 28 (a)).

2. In accordance with the multi-year thematic programme of work adopted by the Commission at its first session, the cross-sectoral thematic clusters of Agenda 21 to be considered by the Commission on an annual basis are: (a) critical elements of sustainability; (b) financial resources and mechanisms; (c) education, science, transfer of environmentally sound technologies, cooperation and capacity-building; (d) decision-making structures; and (e) roles of major groups. Moreover, the Commission decided that, during its second session, particular focus should be given within cluster (a) to chapters 2 and 4 of Agenda 21, within cluster (c) to chapters 34 and 37 and within cluster (d) to chapters 38 and 39.

3. The present report is prepared on the basis of analysis of information available to the Secretariat by the date of submission, including inputs from the Commission's ad hoc working groups, inter-sessional meetings hosted by Governments, contributions from relevant parts of the United Nations system, national Governments, major groups and other relevant sources. National information was provided by a limited number of Governments; therefore, the assessment of progress achieved at the national level is illustrative rather than comprehensive.

I. CRITICAL ELEMENTS OF SUSTAINABILITY

A. International cooperation to accelerate sustainable development in developing countries and related domestic policies

1. Promoting sustainable development through trade

4. The successful conclusion of the Uruguay Round of multilateral trade negotiations can be expected to bring about the further liberalization and expansion of world trade, enhance the trade and development possibilities of developing countries and provide greater security and predictability to the international trading system. The paper submitted by the secretariat of the General Agreement on Tariffs and Trade (GATT) provides a succinct appraisal of the probable impact of the Uruguay Round (E/1994/43, annex, paras. 7-11), as well as a review of discussions held by the United Nations Conference on Trade and Development (UNCTAD) on follow-up activities to the United Nations Conference on Environment and Development, including proposals for future work (E/1994/47, annex, paras. 23-32). Completion of the North American Free Trade Agreement, enlargement of the European Union (EU), agreements on extending the

Customs Union of EU to include, in 1995, Turkey and some of the European economies in transition, measures taken to strengthen a number of regional trade arrangements among developing countries, and unilateral trade liberalization undertaken by many developing countries since 1992 have all contributed to improving the medium-term prospects for world economic growth and for an even more rapid expansion of world trade.

5. The quantifiable benefits of trade liberalization to developing countries as a group are a small proportion of the benefits to the world as a whole, but may none the less average about $20-25 billion per year in 1992 prices, or about 2.5 per cent of their 1993 imports of goods. These benefits will accrue mainly to those developing countries that have been pursuing export-oriented policies and that have a substantial manufacturing sector. Certain categories of developing countries, particularly those highly dependent on trade preferences, those that are food importers and those dependent on commodity exports, may not gain much and may in fact be harmed in the long run. For all developing countries to benefit more fully from trade liberalization, the achievement of other objectives identified in Agenda 21, particularly with regard to commodity trade, is important. A domestic policy environment that would, inter alia, remove biases against exports, discourage inefficient import substitution, improve infrastructure important to trade, diversify economies to reduce dependence on primary commodities and improve domestic market efficiency would also increase the potential for gains from trade liberalization. Improved trade policies are facilitated by the international collection and dissemination of appropriate trade data and information. The report proposed by the UNCTAD secretariat (E/1994/47, annex) describes its recent work programme and other initiatives that have been taken since 1992 and others that are planned for the future to achieve some of these objectives.

2. Making trade and environment mutually supportive

(a) Recent developments

6. Despite perceptions by the general public to the contrary, many of the multilateral trade agreements reached during the course of the Uruguay Round do take into account environmental concerns to a considerable extent, including the Agreement Establishing the World Trade Organization (WTO) (in the preamble), the Agreement on Technical Barriers to Trade, the Agreement on the Application of Sanitary and Phytosanitary Measures, the Agreement on Agriculture, the Agreement on Subsidies and Countervailing Measures, the Agreement on Trade-Related Intellectual Property Rights, the General Agreement on Trade in Services (in article XIV) and the Understanding on Rules and Procedures Governing the Settlement of Disputes. The note by the GATT secretariat describes the relevant provisions (E/1994/43, annex, paras. 13-20).

7. These provisions, together with the improved framework for dispute settlement, advance several of the trade, development and environment agenda items in Agenda 21, paragraph 2.22 (c) to (g) and, especially, paragraph 2.22 (i), which states that Governments should encourage the principle of [avoiding] unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country. Environmental measures addressing

transborder or global environmental problems should, as far as possible, be based on an international consensus. Domestic measures targeted to achieve certain environmental objectives may need trade measures to render them effective. Should trade policy measures be found necessary for the enforcement of environmental policies, certain principles and rules should apply. These could include, inter alia, the principle of non-discrimination; the principle that the trade measure chosen should be the least trade-restrictive necessary to achieve the objectives; an obligation to ensure transparency in the use of trade measures related to the environment and to provide adequate notification of national regulations; and the need to give consideration to the special conditions and developmental requirements of developing countries as they move towards internationally agreed environmental objectives.

8. The UNCED follow-up activities of GATT were carried out by its Group on Environmental Measures and International Trade, which concentrated on three issues: (a) trade provisions contained in existing multilateral environmental agreements vis-à-vis GATT principles and provisions; (b) multilateral transparency of national environmental regulations likely to have trade effects; and (c) trade effects of new packaging and labelling requirements aimed at protecting the environment. A summary of the Group's discussion is contained in the note by the GATT secretariat (E/1994/43/annex, paras. 41-71).

9. With respect to future work in this area, the Trade Negotiations Committee adopted a decision on trade and environment (see E/1994/43, annex, para. 72) and agreed on a programme of work and a recommendation to establish a Committee on Trade and Environment, with a two-year mandate, all of which were adopted at the Ministerial Conference in April 1994.

10. Furthermore, in order to promote a dialogue between the trade, development and environment communities, the Director-General of GATT is planning to hold a symposium of environment and trade experts in the early summer of 1994. Details of the symposium and possible implications for follow-up work by the WTO secretariat may be found in paragraphs 74 to 77 of the note by the GATT secretariat. It may be noted that these activities can be expected to advance a number of the objectives mentioned in Agenda 21, notably in paragraph 2.22 (b) and (j).

(b) Selected issues in the trade, development and environment nexus

(i) Environmental problems with transborder externalities

11. Where these problems have led to the negotiation of multilateral environmental agreements (MEAs), there are principally two issues that arise: (i) whether the trade provisions that they may contain are compatible with the obligations of the Contracting Parties to GATT and (ii) whether multilateral trade measures may be used against non-signatories to the MEAs.

12. With respect to the first issue, any finding of incompatibility may be dealt with by obtaining three quarters of the GATT Contracting Parties to agree to a waiver. Obtaining such a waiver would be more likely the greater the consensus underlying the environmental treaty itself. Therefore, such a treaty should ideally have the following characteristics: (a) be open to all

countries; (b) be negotiated under the aegis of a universal forum; (c) have participation of countries at different stages of development; and (d) have good geographical coverage. If these conditions are met, a waiver might be successfully sought. However, trade measures are second-best policies; what is really sought is appropriate environmental resource management at the national level. When used at all, trade measures to enforce environmental treaties would be expected to respect the principles agreed upon at UNCED in this regard (see para. 7 above). The issue of using trade measures to enforce compliance with MEAs does not arise frequently. Of some 150 such agreements reached to date, only 15 contain trade measures. Of course, the burden-sharing arrangements that explicitly or implicitly are associated with an MEA must be dictated by the principle of equity and cost-minimization across countries for the Earth as a whole if they are to be acceptable. In such cases, agreement on the use of trade measures may be forthcoming.

13. As regards non-signatories to MEAs, compatibility of trade measures with GATT provisions is a moot question. The reason for being a non-party should be addressed directly by a combination of technology transfer, financial and technical assistance and other means.

14. A different issue arises in the case of regional transborder externalities. In such cases, a country experiencing adverse spillover effects may wish to use a trade measure focused on the products causing transborder pollution. This would be an example of unilateral enforcing of the polluter pays principle. Even here a distinction has to be made between cases where the transborder effect arises in the country imposing the unilateral measure and cases where it is directed at efforts that arise in some other country or in areas beyond national jurisdiction. The comparability of such unilateral measures with GATT measures is open to question. The remedy could well be that of regional agreements rather than unilateral action.

(ii) Domestic environmental concerns without international externalities

15. The issues that arise under this heading are far more contentious than the ones mentioned above. Those, mainly in developed countries, who would tend to place a higher value on environmental objectives than on economic efficiency or economic development fear that GATT will lead to downward harmonization of national standards, limit the goals that might be pursued through such standards and limit the means that States can use to achieve environmental objectives. Developing countries fear that imposition of higher standards based on the use of process and production methods (PPMs) even when no international spillovers are involved, would simply lead to a proliferation of trade restrictions without any discipline or restraint. They also fear that the growing use of voluntary eco-labelling schemes in consumer countries might constitute de facto non-tariff barriers to trade.

16. GATT does impose some discipline on national environmental regulations that might have adverse trade effects and, in general, rules out the use of trade measures to protect extrajurisdictional environmental resources. The extent to which this would slow the achievement of global environmental objectives is probably not very great. In the first place, more than 400 national environmental regulations that risk having adverse effects have been notified to

GATT without a single one being taken to a dispute panel. In the second place, nothing in GATT rules out domestic environmental policy measures if they are equally applied to domestically produced and imported goods and if they are non-discriminatory. Indeed, under the Agreement on Technical Barriers to Trade and the Agreement on the Application of Sanitary and Phytosanitary Measures, measures are allowed to protect human, animal and plant life or health or the environment; to ensure the safety of human and animal food; and to protect human health. These Agreements encourage but do not require the use of international standards, and, in the case of health risks, require the presentation of scientific findings, an evaluation of risks and a justification of measures as necessary for health protection. Moreover, under article XX, exceptions can be sought for environmental reasons, among others, that which violate normal GATT disciplines. However, where trade restrictions might be involved, the bottom line is to place the burden of proof on the country proposing restrictive trade measures to justify those measures in terms of the legitimacy of the objective sought and the appropriateness of the measure.

17. In discussing these issues further, four important propositions deserve emphasis since virtually all Governments agree to them. One is that there are legitimate reasons for diversity in environmental regulations across countries. Secondly, differences in the relative costs of production constitute the very basis for gains from international trade. Thirdly, differences in environmental regulations should not be regarded as a greater source of distortion to market prices than those created by different systems of taxation. And fourthly, the unilateral imposition of environmental standards extraterritorially is inadmissible.

18. With these propositions in mind, one might consider the issues that arise from the following: (a) an increasing interest in setting national environmental standards on the basis of PPMs; (b) concerns arising from lack of harmonization of national environmental standards; (c) concerns about the potential adverse trade impact of certain measures such as "take-back" obligations; (d) concerns about the possibly adverse effects on trade of eco-labelling and (e) the impact on trade if all countries adopt the polluter pays principle (PPP), i.e., full internalization of environmental external costs.

19. Regarding the use of PPMs, the papers prepared by the GATT and UNCTAD secretariats provide useful discussions, which it would be redundant to summarize here. It may be noted that PPMs have rarely been used as the basis for trade measures, exceptions being products produced with prison labour, products containing chlorofluorocarbons (CFCs), and certain foods where the processing methods may be deemed a close proxy for potential health hazards. Most probably, PPMs should continue to be used sparingly since their widespread use would contradict the logic of benefits from trade liberalization owing to comparative advantage.

20. Regarding harmonization of standards, the principal issues are well discussed in the papers by the GATT and UNCTAD secretariats. It may, however, be noted that one of the most loudly voiced concerns, that of the effects on competitiveness, is a close ally of protectionist sentiments and is often highly

exaggerated in view of the fact that environmental compliance costs are a small proportion of total costs.

3. Proposals for action

21. The Commission may wish to take note of the proposed work programmes in the papers prepared by the GATT and UNCTAD secretariats (see E/1994/43, annex and E/1994/47, annex), which contain proposals for research, analysis, data collection and dissemination, and technical cooperation to assist developing countries in, inter alia, diversifying their trade to take advantage of emerging markets for environmentally friendly products. Some of these programmes are being undertaken in collaboration with the United Nations Environment Programme (UNEP) and are supported by the United Nations Development Programme (UNDP).

22. Furthermore, the Commission may wish to consider the themes identified in paragraph 101 of the UNCTAD report and decide to which theme it might attach special importance.

23. In addition to reviewing the work on the trade, development and environmental nexus of the World Trade Organization and UNCTAD, the Commission may wish to consider the role it can play in evolving a consensus on trade and environment linkages.

B. Changing consumption patterns

1. General considerations

24. At the United Nations Conference on Environment and Development, agreement was reached on the importance of changing patterns of production and consumption, particularly in developed countries, in order to reduce environmental stress. The focus of consumption patterns in chapter IV of Agenda 21 leads quite naturally to a consideration of demand management as an important area of policy. Among the many concerns expressed about the impact of significant changes in the consumption and production patterns in developed countries are the following:

(a) The levels of consumption per capita are so high as to reduce the access of people in developing countries to basic goods and services by reducing global savings needed for fixed capital formation;

(b) The resource intensity of this consumption is such as to deplete natural resources needed by developing countries for their own economic development in the future;

(c) Contemporary patterns of production and consumption generate a volume of environmentally harmful by-products that swamp the absorptive capacity of the globally shared environmental resources and that therefore threaten to impose costs on developing countries that developed countries avoided in the early stages of their own economic growth and industrialization.

25. The first of the concerns mentioned above has to be seen in the context of what happens when the savings increase. Actions taken to reduce levels of consumption per se would reduce global demand and thereby worsen the export prospects of developing countries. However, if consumption was reduced by a tax that financed a transfer of resources to developing countries, the results would presumably be positive for developing countries. Similarly, if consumption in developed countries was reduced by a tax that caused the public sector borrowing requirement to fall, long-term interest rates might be reduced and this could favour investment in developing countries. Macroeconomic policies are governed not only by sustainability concerns, but also by a variety of other objectives like inflation management, employment, and trade competitiveness. Hence, the scope for the consideration of effective policy measures of a macroeconomic nature in the work of the Commission on Sustainable Development has to be viewed in the context of the activities of other international forums.

26. The second of the concerns mentioned above dominated international dimensions in the early 1970s when the "limits to growth" hypothesis focused attention on the scarcity of natural resources as an input to production, an argument that carried considerable force after the oil price shocks of the 1970s. In this area, the behaviour of market prices, measures of reserve adequacy and projected trends of material intensity of production provide considerable guidance. The consensus among students of natural resource economics is that the emergence of serious scarcity of tradable raw materials is unlikely over the next few decades. Indeed, there has been considerable concern expressed by developing country exporters of agricultural raw materials and metals and minerals about the prolonged period of slow growth in world demand for these products and the associated low (and often falling) prices that they command in international markets. A recent study of this phenomenon concluded that the slow growth in consumption has been due to three causes: 1/

(a) Slower growth in world domestic product;

(b) Changing structures of production in developed countries, with falling shares of the relatively material-intensive branches of manufacturing;

(c) Recycling and technological change resulting in inter-metal substitution, and the replacement of agricultural raw materials and some metals by synthetics.

27. Projection of future trends suggests little change in the situation of metals and minerals but improved prospects for world consumption of agricultural raw materials associated with the growing importance of markets in the developing countries themselves. The conclusions mentioned above in connection with metals and minerals are strengthened by trends in the reserve consumption ratios monitored by the World Resources Institute. 2/

28. The third area of concern, namely, environmentally damaging by-products of contemporary consumption and production patterns, has many aspects, among which are the following:

(a) Emissions of greenhouse gases, including the impact of the transport sector;

(b) Release to the environment of toxic materials such as heavy metals, hazardous chemical and acidic gases, including stratospheric ozone-depleting gases;

(c) Generation of solid waste resulting in disposal problems.

29. The magnitude and growth expected in these areas, given current patterns of consumption and production, threaten such environmental resources as clean air, clean water, fertile soil, many ecosystems and biodiversity.

30. In many developing countries some of these same concerns are present, and are becoming increasingly perceived as important problems, especially where urban agglomerations are large and growing rapidly. In nearly all developing countries, however, the most serious environmental degradation relates to unsustainable land and water use patterns, which are among the direct consequences of the efforts of people living in poverty to improve their lot and, often, merely to survive. Deforestation, desertification and the loss of biodiversity owing to habitat destruction and the poaching of endangered species are the result. It is generally recognized, moreover, that without the kind of economic policies that simultaneously reduce poverty and encourage the movement of people away from marginal land and fragile ecosystems, there is little prospect for improvement on the environmental front. 3/

2. Policy approaches

31. From the foregoing sketch of issues related to consumption and production patterns, it is obvious that many of the solutions will be found by directly influencing methods of production through, inter alia, (a) development and dissemination of more eco-efficient technologies; (b) a mix of regulations by command and control and the use of economic instruments to encourage more eco-friendly and sustainable production in industry, agriculture, forestry and fishing; (c) increased use of "end-of-pipe" measures, e.g., sewage treatment plants. Measures of these types, of course, have direct impacts on patterns of production. In so far as their implementation or method of financing changes the relative prices of inputs in production or of the goods and services that are ultimately purchased by consumers, they can be expected to lead indirectly to environmentally beneficial changes in consumption patterns. Since the work of the Commission on Sustainable Development on the follow-up to Agenda 21 can be expected to address the efficacy of such measures in its sectoral reviews, it may be useful in discussions of changing consumption patterns in the context of chapter 4 of Agenda 21 to concentrate the work programme of the Commission on issues related as closely as possible to the patterns of final demand.

32. If environmental policy is to be cost-effective, it is important to develop a framework for understanding the links between consumption of certain products and their adverse impact on the environment, on the one hand, and the consequences both for the environment and for the rest of the economy of the changes that policy is meant to bring about.

33. One of the most useful analytic tools for this purpose is integrated economic and environmental accounting. Essentially, this may be understood as a

system for adjusting one of the principal macroeconomic aggregates of the System of National Accounts, namely, net domestic product. One adjustment consists of computing a deduction for the net depletion of exhaustible resources valued by their net prices, i.e., their marginal productivity in production minus their marginal cost of extraction. Another adjustment consists of computing a deduction for the depletion of the stock of "environmental capital" such as clean air, clean water, fertile soil, natural ecosystems and biodiversity which provide environmental amenities. Such a comprehensive measure combined with sector-specific quantitative indicators will allow national policy makers to better appreciate the magnitude of their problems, to set priorities among competing environmental needs, and to weigh environmental needs against other claims where costs are an important consideration. Quantifying the costs and benefits of a number of policy interventions in each major area of consumption would enable policy makers to begin with policy measures having particularly favourable benefit cost ratios (see illustrative framework for analysing elements of consumption and consequences of change).

Illustrative framework for analysing elements of consumption and consequences of change

Consumption concern	Adverse impact on current trends	Consequences of trend pattern changes (through reduced demand consumption etc.)		
		On environment (including health)		On economy
Energy	Increasing emissions (CO_2, SO_x)	Decrease greenhouse effects	ST	Income loss for traditional energy producers
		acidification	LT	Societal transition towards use of other energy resources (renewables)
	Depletion of non-renewable resources	Conservation of resources		
Vehicles	Increasing local air pollution and noise	Better local air quality	ST	Shift in traditional car manufacturing and related sectors
		Reduced CO_2 emissions	LT	Development of other modes of transportation
	Depletion of resources (use of raw materials and space for infrastructure)	Improved urban amenities	LT	Increase public transportation
Packaging	Generation of waste	Reduced generation of waste	ST	Loss of income and employment for current packaging industry
	Inefficient use of resources	Fewer resources used	ST	New opportunities for alternative, recyclable packaging
			LT	Growth in consumer preference for more sustainable packaging

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Consumption concern	Adverse impact on current trends	Consequences of trend pattern changes (through reduced demand consumption etc.)		
		On environment (including health)		On economy
Water	Conflict over access and quality	More good quality water available	ST	Proper pricing, water becomes an economic commodity
	Increasing drought and erosion	Reduced pressure on ecosystems		Reduced potential for water rights conflicts
	More damage to ecosystems			
Cattle, beef and tropical timber	Increasing deforestation	Increase in CO_2 sinks	ST	Loss of income for timber and beef producers
	Increasing desertification	Preservation of ecosystems	LT	Sustainable yields (alternative products)
	Increasing erosion	Maintaining biodiversity	LT	Opportunities for economic diversification (e.g. tourism)
Fish	Depletion of stocks	Preserving balance in ecosystems	ST	Loss of income to fisheries industry
			LT	Sustainable yields
	Loss of biodiversity	Maintaining biodiversity	LT	Management of a common property resource

Consumption concern	Adverse impact on current trends	Consequences of trend pattern changes (through reduced demand consumption etc.)		
		On environment (including health)		On economy
Other raw materials	Rising environmental impacts of extraction	Conservation of resources for future generations	ST	Loss of employment and income in the extraction and primary production sectors
			ST	Stimulate R&D on substitutes
	Growing depletion and exhaustion	Reduced environmental damage from extraction and production	LT	Transition towards more use of recycling processes
	Low uncertain commodity prices		LT	Greater price stability

Source: Bill L. Long, "Managing change: the challenge of sustainable consumption", paper prepared for the Symposium on Sustainable Consumption, Oslo, 19-20 January 1994.

Notes: ST = short-term impacts. LT = long-term impacts.

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34. The economic agents whose behaviour as consumers could be the target of policy measures include both households and Governments. The immediate objective of measures to change consumer behaviour could, for example, be said to include the following:

(a) Reducing the material intensity of final consumption;

(b) Reducing the energy intensity (especially of fossil fuels) of final consumption;

(c) Reducing the waste of water;

(d) Reducing the content of environmentally harmful substances;

(e) Reducing the bulk of solid waste disposal;

(f) Reducing direct threats to biodiversity.

35. There is considerable scope in developed countries for improving energy efficiency. One scholar has estimated, for example, that energy intensities could fall by 1.1 per cent per year through 2010, with no change in incentives, through slow turnover of the capital stock; however, total energy use would increase by more than one third. Increasing the price of energy by 50 per cent over its baseline level by 2010 could be expected to lead to a more rapid introduction of currently known energy-saving technology and this could lead to declines in energy intensities of about 2 per cent per year, resulting in only modest overall increases in total energy use. Doubling energy prices and accelerating the introduction of highly fuel-efficient automobiles could lead to energy intensities declining by 3.6 per cent per year (as they did in the 1979-1983 period) and to total energy use declining by about one sixth. 4/

36. Effective measures to achieve most of these goals incorporate the principle of internalizing to economic agents the full external costs that their behaviours impose on others when environmental resources are treated as free goods. The basic principles that should be respected by policy makers in seeking to internalize such costs include the polluter pays principle and the full-cost resource pricing principle. The former focuses on the by-products of the production process itself and is generally implemented by imposing a cost on the producer, although the ultimate burden is shared between the producer and the consumer in a proportion determined by the elasticities of demand and supply for the product in question. The resource pricing principle is sometimes described as a "user pays" principle. It is concerned with getting correct market prices for the natural resource inputs into production. Briefly, this rules out subsidies to the direct costs of production and indirect subsidies through artificially low publicly administered resource prices. 5/ The polluter pays principle may also be extended with the cradle-to-grave principle of requiring that the producer bear the environmental costs of a product throughout its life cycle, e.g., by requiring producers to accept discarded products for reuse or recycling.

37. Among the practices that might be encouraged are the following:

(a) Energy conservation;

(b) Recycling;

(c) Reusing;

(d) Reducing packaging bulk;

(e) Avoiding consumption of products from endangered species;

(f) Encouraging consumption of products produced by more eco-friendly processes.

38. Among the measures that are most likely to be cost-effective in changing behaviour are economic instruments. Economic instruments operate by charging a price for the use of environmental services. Such instruments encourage reductions in the ratio of environmental resources to final consumption and, because some of the cost is passed on to consumers, households have an incentive to shift from more resource-intensive to less resource-intensive goods and services. While other measures, such as regulations conscientiously enforced, also increase costs, economic instruments have a number of properties that generally render them superior: (a) they are more cost-efficient; (b) they have dynamic effects; and (c) they produce a revenue stream, which may be used to reduce other taxes, especially those that discourage employment. 6/

3. Recent trends in national policies

39. Many Governments have been introducing specific measures intended to encourage such practices as those mentioned above by providing incentives to households. A number of Governments are using procurement policy to change consumption patterns directly and to increase the effectiveness of incentives by, for example, enlarging the market for products made from recycled materials. Consumer advocacy groups and environmentally concerned non-governmental organizations have been increasing public awareness of the need to change behaviour and of ways to do so. In several countries, government ministries responsible for environmental matters organize public awareness campaigns and attempt to reinforce values that support sustainable consumption patterns, often in cooperation with ministries of education. Recourse to moral persuasion is, however, unlikely to be effective by itself in bringing about major changes in consumption patterns. It can, however, play an extremely important role in gaining popular acceptance for measures such as taxes, charges and others, which would increase the cost to consumers of maintaining unsustainable consumption patterns.

40. Economic instruments are already being used to a significant extent in developed countries as may be seen from the table which catalogues slightly over 200 such measures classified as charges on emissions, charges on products, deposit refunds, tradable permits and enforcement incentives. 7/ Limited information pertaining to 1987 and 1992 for eight countries is suggestive of a

trend towards increasing use of economic instruments. Moreover, a number of recent initiatives is suggestive of their greater use in the future. These include the following:

(a) Feasibility studies are under way in eight countries, with six other countries stating their intention to increase their use of economic instruments;

(b) Belgium introduced a new set of product charges in 1994, while Switzerland and Austria are considering specific proposals;

(c) Denmark, Finland, Germany and Sweden are continually adapting various incentive schemes;

(d) The United Kingdom of Great Britain and Northern Ireland is considering charges for waste water and other waste products.

Economic instruments per country on 1 January 1992

	Charges on emissions (of which user charges)	Charges on products (of which tax differentiations)	Deposit refunds	Tradable permits	Enforcement incentives
USA	5 (2)	6 (1)	4	8	2
Sweden	3 (2)	11 (2)	4		2
Canada	3 (2)	7 (3)	1	2	2
Denmark	3 (2)	10 (2)	2		
Finland	3 (2)	10 (2)	2		
Norway	4 (2)	8 (2)	3		
Australia	5 (2)	1 (0)	3	1	2
Netherlands	5 (2)	4 (2)	2		
Austria	3 (1)	4 (2)	3		
Germany	5 (2)	3 (3)	2	1	
Belgium	7 (2)	2 (2)	1		
France	5 (2)	2 (1)			
Switzerland	3 (2)	2 (2)	1		
Italy	3 (2)	2 (0)			
Iceland	1 (1)	1 (1)	2		
Japan	3 (1)	1 (1)			
Portugal	2 (0)	1 (1)	1		
Iceland	2 (2)	1 (1)			
Greece		2 (1)	1		
Spain	3 (2)				
UK	1 (1)	1 (1)			
Turkey			1		

Source: Organization for Economic Cooperation and Development, Integrating Environment and Economics: The Role of Economic Instruments (Paris, 1994) (forthcoming).

41. Despite the growing interest in economic instruments and their increasing use, there does not as yet exist sufficient quantitative evidence to evaluate adequately the effectiveness of their use in practice. Experience of developed countries, none the less, suggests a number of tentative conclusions: (a) economic incentives work best in combination with other instruments, such as direct regulation; (b) product charges and deposit refund systems are the most frequently used and rapidly increasing instruments; (c) user charges for waste collection and disposal, for sewerage and sewage treatment, are quite common; (d) tax differentiation is widely used in the automobile transport sector and appears to have led to increases in the market share of unleaded gasoline; (e) an incentive impact is apparently intended in about 45 per cent of the cases of emission charges, but information necessary to evaluate the actual incentive impact is available in only about 10 per cent of the cases; (f) an incentive impact is intended in about 45 per cent of the cases of product charges, but information necessary to evaluate the actual incentive impact is available in about 50 per cent of the cases.

42. In most European economies in transition, environmental taxes have been common, but not designed for incentive effects. They have served primarily to generate revenues for earmarked environmental expenditure programmes. This situation is expected to change as enterprises increasingly become accustomed to operating in a market environment and since the structure of environmental charges is under review and is likely to be modified.

43. Among the developing countries, there has as yet been no substantial use of economic instruments. However, their use in the Republic of Korea, Taiwan Province of China, Thailand and Indonesia was examined and compared with Japan in 1991 and 1992 by the Development Centre of the Organisation for Economic Cooperation and Development (OECD). All of these countries have relied heavily on command and control in the past and most continue to do so. The countries' policies were reviewed under the following headings: (a) resource and input pricing policies; (b) environmental taxes, charges and subsidies; (c) environmental trends; (d) deposit refund schemes; (e) tradeable permits and (f) pollution control agreements. 8/

44. With regard to resource and input pricing, several countries were found to be subsidizing the use of one or more of the following: pesticides, fertilizers, energy and water. Taiwan Province of China and Thailand were actually studying the introduction of pollution taxes; Thailand has been discounting tariffs on capital equipment for waste treatment and Indonesia has expressed its intention to do so. The Republic of Korea and Thailand have environmental funds financed by fines or pollution charges and, in the case of Thailand, by a levy on oil consumption. The Republic of Korea has a fairly extensive deposit refund system and Indonesia levies a forestry deposit fee refundable against replanting. Singapore, which was not included in the study, is the only country in East Asia utilizing a tradable permit system, in this case, a system of auctionable permits for ozone-depleting substances. Pollution-control agreements are in use in Indonesia in its effort to clean up 20 heavily polluted rivers. The limited experience with economic instruments was found to be encouraging and there was certainly scope for expanding their use; in practice, this would need to be combined with elements of command and control.

45. National reports received by the Department for Policy Coordination and Sustainable Development of the United Nations Secretariat contain some additional information on changing consumption patterns. The reports from developed countries cover much of the same ground covered by OECD. Estonia reported the establishment of special charges for waste disposal. Malaysia reported on tax incentives to encourage the use of unleaded fuel, encourage the use of catalytic converters, encourage the processing of agricultural and chemical waste, encourage the treatment and disposal of toxic and other hazardous waste and encourage the importation and use of pollution-control equipment. Malaysia has also been experimenting with publicity campaigns, for example, to encourage recycling, but has found that targeted programmes, such as those conducted through schools, are more effective than programmes directed at the general public.

4. Activities of international organizations

46. At the meeting of the Inter-Agency Committee on Sustainable Development (IACSD) and through other communications, several agencies described work under way on various aspects in this area. On the supply side, the International Labour Organization (ILO) was examining the impact of changing technologies and structural change on employment issues. UNEP described a major initiative, its Cleaner Production Programme, aimed at reducing global industrial pollution and waste and the need to promote management skills for eco-efficiency and sustainable industrial development. The Food and Agriculture Organization of the United Nations (FAO) mentioned its work on food chains, e.g., alternatives to water-intensive agricultural production. On the demand side, UNCTAD and UNEP described their proposed work programme on eco-labelling; the Department for Policy Coordination and Sustainable Development referred to its work on consumer protection, which includes maintenance of the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or not Approved by Governments 9/ and assisting countries to implement the set of Guidelines for Consumer Protection adopted by the General Assembly in 1985. 10/ FAO mentioned its work on the Codex Alimentarius. The World Bank outlined its work programme on indicators and on the use of economic instruments.

47. An interim version of a handbook on integrated environmental economic accounting was published by the Statistical Division of the United Nations Secretariat in 1993. 1/ UNEP and the Statistical Division held a consultative expert group meeting in December 1993 to advance agreement on a set of indicators suitable for monitoring sustainable development. This will be followed by further studies in the context of an international project on sustainable development indicators by the Scientific Committee on Problems of the Environment of the International Council of Scientific Unions (ICSU). An intergovernmental working group is then expected to evaluate this work in early 1995 and make recommendations to the Statistical Commission, meeting later that year, which could lead to agreement on a national questionnaire.

48. The Committee on New and Renewable Sources of Energy and on Energy for Development, at its meeting in February 1994, recommended to the Economic and Social Council the adoption of a draft resolution to the effect that countries

should pursue a new energy path by using a combination of four options: (i) more efficient use of energy and energy-intensive materials; (ii) increased use of renewable sources of energy; (iii) more efficient production and use of fossil fuels; and (iv) fuel substitution from high-carbon to low-carbon or non-carbon-based fuels. With respect to each of the options, the draft resolution identifies many specific policy measures that might be used, among which the use of economic instruments figures prominently, and requests the Secretary-General to prepare a biennial comprehensive report on world-wide progress in implementing the resolution.

49. Outside the United Nations system, OECD is the most active international organization working in this area. Following the request by the OECD Ministerial Council in 1993 for preliminary work on the relationships between consumption and production patterns and sustainable development, interest in this subject has mounted rapidly in member countries and beyond. In the light of expanding interest, and taking into account the discussions in the Oslo Symposium on Sustainable Consumption, in January 1994, OECD is considering new work in this field to deepen understanding of key consumption and production issues and trends. The goals would be to develop a solid conceptual framework that could help support and guide future international discussions, and promote actions by Governments in meeting the challenge of moving towards more sustainable patterns. The aim of this analysis would be to establish a better basis for determining the likely impacts (both short and long term) of significant changes in consumption and production patterns in OECD countries on national economies, international trade and competitiveness, and the environment. The work would take into account broader international efforts and the outcome of the meeting of the Commission on Sustainable Development in May 1994.

5. Proposals for action

50. In order to facilitate a better understanding of the interrelationships among consumption patterns, production techniques, economic growth, population dynamics and environmental stress, Governments are urged to (a) intensify and expand their efforts to collect relevant data at the national and subnational levels; (b) undertake projections and perspective studies so as to appreciate better the consequences of present policy stances and the possible impact of changing those policies.

51. In order to provide the basis for exchanging experience among countries on effective national policies, Governments are urged to include in their national reports to the Commission on Sustainable Development, specific changes in their legal and regulatory frameworks and enforcement mechanisms intended to achieve the following objectives: (a) encourage greater efficiency in the use of energy and resources, (b) maximize the prevention of wastes, (c) assist individuals and households to make environmentally sound purchasing decisions, (d) exercise leadership through government purchasing, (e) move towards environmentally sound pricing, and (f) reinforce values that support sustainable consumption.

52. It would be useful to concentrate further work in the United Nations on the following areas: (a) measuring the impact of consumption by means of

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appropriate indicators; (b) consumer legislation, including eco-labelling and consumer protection; (c) organizing exchange of experience, especially among developing countries and economies in transition, with the use of economic instruments; (d) examining the procurement policies of national Governments and international organizations; (e) reviewing progress in negotiating or implementing agreements to limit consumption in specific areas such as CFCs and CO_2; (f) identifying the need to extend this process to other specific substances; and (g) enhancing the role of education and consumer awareness campaigns in changing consumption patterns.

II. FINANCIAL RESOURCES AND MECHANISMS

A. General considerations

53. Agenda 21 represents an agreed political framework for the financing of sustainable development. It includes financial commitments such as an increase in official development assistance (ODA) flows and addresses other issues such as the worsening of terms of trade, problems in the access to international finance, the need for debt relief, national policies for resource mobilization and innovative financing.

54. So far, the response to the financial recommendations and commitments of Agenda 21 falls short of expectations and requirements, even though the recent finalization of the restructuring and replenishment of the Global Environmental Facility (GEF) and the successful completion of the Uruguay Round are encouraging. At the international level, significant new and additional financial resources other than those provided by GEF have not been made available to developing countries, and at the national level, increased efforts are necessary to stimulate private and public savings and promote economic growth. Furthermore, most innovative international financial mechanisms are still at the development stage and require further study.

55. The Inter-sessional Ad Hoc Open-ended Working Group on Finance of the Commission dealt with these and other issues at its meeting in New York from 28 February to 2 March 1994 and made various recommendations in its report to the Commission (see E/CN.17/1994/10). Therefore, this overview will largely aim at complementing the report of the Working Group and the report of the Secretary-General prepared for it.

56. The United Nations and OECD Secretariats have begun informal consultations to explore the possibility of classifying data on ODA and other financial flows collected by the Development Assistance Committee (DAC) in a way more suitable for monitoring the financial objectives of Agenda 21.

57. Finally, a workshop in Kuala Lumpur was sponsored by the Government of Malaysia and Japan to prepare for the above-mentioned meeting of the Working Group on Finance.

1. Access to international finance

58. Developed countries need to make greater efforts to honour the financial commitments made in Rio, including those of ODA. Aggregate official development assistance from DAC members increased in 1992 by 5.8 per cent in nominal terms to $59.9 billion, but slightly decreased in real terms, i.e., making allowance for changes in prices and exchange rates vis-à-vis the United States dollar, by 0.3 per cent. Contributions of DAC countries to multilateral agencies rose by 19 per cent to $19.5 billion, mainly owing to higher contributions to the International Development Association (IDA) and the regional development banks. Bilateral ODA from DAC countries, by contrast, declined by 6 per cent in real terms in 1992. In particular, bilateral grants dropped by 12 per cent, owing mainly to a fall in United States bilateral disbursements. The group of nine countries whose ODA to gross national product (GNP) ratio was below the DAC average of 0.33 per cent in 1992 includes the United States of America, Japan, Italy and the United Kingdom of Great Britain and Northern Ireland. Among them, these countries provide almost 50 per cent of DAC ODA and therefore weigh very heavily in the calculation of the DAC average. The United States (0.20 per cent), Japan (0.30 per cent) and the United Kingdom (0.31 per cent) all reported declines in their ODA to GNP ratios. Italy (0.31 per cent) recorded a small recovery in aid volume and its ODA to GNP ratio. Spain (0.28 per cent) reported significant growth on both accounts. Ireland reported the lowest ODA to GNP ratio of any DAC member in 1992 (0.16 per cent), but has announced measures to secure an increase in its volume in future years. The newest member of DAC, Luxembourg, which joined in December 1992, recorded an ODA to GNP ratio of 0.26 per cent, owing to a temporary fall in aid volume. In absolute terms, the United States, at $11.7 billion (including the concessional assistance represented by forgiveness of military debt), and Japan, at $11.1 billion, remained the largest DAC donors in absolute terms in 1992, followed by France ($8.3 billion) and Germany ($7.6 billion).

59. It will be important to further strengthen the lending capacity of multilateral institutions. Multilateral institutions have been the largest sources of net flows, both concessional and non-concessional, to the developing countries and their share in total net flows has increased over the past decade. The medium-term outlook is for increasing net flows in support of structural reforms and the development process in a growing number of countries, including the new borrowing member countries in Eastern Europe and Central Asia. Funding for these emerging demands has been made possible through recent general capital increases.

60. Furthermore, policies aimed at improving private capital flows and foreign direct investment (FDI) should be strengthened. The record of financing from private sources has been mixed. While bank lending to developing countries has remained subdued, non-bank financing, through securities markets (i.e., bonds and equities) has continued to increase in the past few years. As concerns bank loans, commitments to developing countries have fluctuated around a declining trend. In the 1990s, they have averaged about US$ 21 billion annually, with a sharp drop in 1992 being followed by some recovery in 1993. In contrast to bank financing, private (non-bank) market financing flows to developing countries have continued to increase, although the experience is highly uneven across market segments and across countries. These flows have taken the form of bond

financing and equity capital. In the recent past, the structure of such flows has shifted markedly towards increased reliance on bond financing and reduced activity in equity markets. FDI flows to developing countries have been rising rapidly over the past decade, totalling $56 billion in 1993. FDI to East Asia exceeded $15 billion in 1992, up 15 per cent over the year, and China was the largest recipient. In Latin America, after a slight rise in 1990, FDI jumped almost 70 per cent in 1991, to $12 billion, and a further 25 per cent in 1992, to nearly $15 billion. Latin American countries effectively converted a significant percentage of their debt into equity stakes. The trend has also been impressive in the Middle East and North Africa region in the 1990s, from $1 billion to $4 billion, while in sub-Saharan Africa, however, investments have stayed at 1986 levels, at $2 billion.

61. Efforts aimed at easing the external debt burden of developing countries should be continued, especially for least developed and other low-income developing countries with poorly diversified exports. Developing country debt is now better provisioned by creditors and is being put to more productive use by borrowers, thereby creating a greater debt-servicing capacity. Despite these positive developments, a number of trends give cause for concern. These concerns are particularly evident in the poorest countries, as the situation in sub-Saharan Africa illustrates. Progress with economic reform has often been slow, and the economic outlook is discouraging. Expanded overall resource flows and the improved debt situation for developing countries as a whole have largely bypassed them. For many countries, debt obligations are still well beyond their ability to meet debt service payments, resulting in the build-up of arrears. Even for those that have been able to keep up with obligations, many struggle to do so, leaving little foreign exchange earnings for other purposes. Some recent initiatives reflect concern with this situation. For example, the United States is considering the cancellation of an important part of its claims on the poorest African countries through existing Paris Club arrangements (the enhanced "Toronto Terms"). Others continue to press for the application of greater debt forgiveness along the lines of the "Trinidad Terms".

2. National policy environment and the financing of sustainable development

62. Both developed and developing countries need to improve their national policy environment in order to increase the availability of domestic resources for the financing of sustainable development. National sustainable development plans and strategies are an important instrument in this regard since they can facilitate the development and implementation of policy options. It will, for example, be important to search for a better mix between traditional regulation and the use of economic instruments. Command-and-control regulations such as end-of-the-pipe effluent standards, end-of-the-smokestack emission standards and mandated pollution-control technologies have been the standard approach to environmental protection in developed and developing countries alike. Poor performance and high compliance and enforcement costs have encouraged many developed and some developing countries to explore the use of economic instruments either in support or replacement of command and control regulations.

63. Economic instruments such as environmental taxes, effluent charges and tradable emission permits are known to be more cost-effective than effluence and emission standards or mandated technology in attaining a given level of environmental quality. Furthermore, while regulations generate no revenues and require large budgets and bureaucracies to manage and enforce them, economic instruments, if properly designed, could simultaneously reduce enforcement costs and generate substantial revenues for environmental investments. Moreover, economic instruments impose significantly lower compliance costs on industry because they allow polluters the freedom to choose their response so as to minimize the cost of compliance. For example, they can pay the charges, reduce or treat their waste, change their input combination, reduce their output, change their production technology or move to a different location.

64. It will be necessary to address the issue of excessive subsidies, too. Approximately one trillion United States dollars a year, or 5 per cent of the world's GNP, is spent by developed and developing countries on environmentally damaging subsidies, on, among others, fossil fuels, electricity, agriculture, water and pesticides. Global reductions in these subsidies would result in economically and environmentally beneficial changes in favour of cleaner and more efficient industries and faster and greener growth.

65. In addition, military spending should be cut. The world spends $1 trillion on the military every year, and many countries expend more on the military than on social sectors. In high-income countries, military spending has been increasing at roughly the same rate as gross domestic product (GDP). In developing countries, military expenditure has been declining - from 6-7 per cent of GDP in the late 1970s to about 4-5 per cent in the second half of the 1980s. This is in part accounted for by drastic reductions in military spending in the Middle East and in Latin America.

66. Finally, private sector involvement in the financing of sustainable development should be encouraged. For example, private sector investment in environmental infrastructure could be encouraged through the use of build-operate-transfer (BOT) agreements. This technique holds much promise, especially in meeting the heavy investment requirements in such priority areas as power generation, water treatment and distribution, and waste disposal, as well as health education. However, there is a need to assist developing countries to put in place the necessary legal and regulatory frameworks to accommodate the use of such mechanisms, and to assist in the training of human resources to identify, design, negotiate, implement and manage such sustainable development projects.

3. Innovative financing for sustainable development

67. Access to international finance and domestic resource mobilization could be significantly improved by pursuing more rigorously the development and establishment of innovative financial mechanisms. Progress has been made, for example, concerning mechanisms related to external debt. Debt-for-sustainable-development swaps are useful instruments for providing short-term financial relief and include debt-for-nature, debt-for-education and debt-for-habitat

swaps. Moreover, environmental investment funds prove to be a promising innovative mechanism.

68. If properly designed and operated, national environmental funds can play a catalytic role in improving environmental management, bio-diversity conservation, and sustainable and equitable use of natural resources. To date, environmental funds have been initiated in 20 countries, or groups of countries. Together, these funds have received funding commitments of almost US$ 300 million, and have had over US$ 50 million actually transferred to them. Funds in the Philippines, Bolivia and Jamaica have developed to the point of making grants to field projects (a total of almost 90 to date). Much remains to be done to promote and encourage the further development of these funds.

69. Among the various innovative international mechanisms under discussion are tradable permits on greenhouse gas emissions, international emission charges and international charges on air travel. Tradable permits for CO_2 emissions abatement fulfil the condition established under article 3, principle 3, of the United Nations Framework Convention on Climate Change, which states that "measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost" (A/AC.237/18 (Part II)/Add.1). The development and implementation of an international tradable permits scheme for CO_2 emissions abatement must progress in stages. In this regard, the use of the joint implementation mechanism, under appropriate modalities and guidelines, provides valuable practical experience and helps to lay the basis for a multilateral tradable permit arrangement.

70. International emission taxes could provide an effective instrument for pollution control and reduction. There are two basic approaches to setting a tax. In the case of a tax on fossil fuel, Governments may determine the level of abatement desired and then set a tax with a view to bringing about the desired reduction in greenhouse gas emissions. Alternatively, Governments could determine the acceptable tax burden that the international community would accept and allow it to produce the concomitant emission reductions. Either way, the potential revenue flows could be enormous.

71. With regard to international charges on air travel, it is argued that air transportation is a major consumer of fossil energy and emitter of greenhouse gases. High altitude flights also contribute to the degradation of the ozone layer. It has been estimated that a 1 per cent charge on all passenger tickets issued in 1989 would have generated $1 billion. Seventy-five per cent of this sum would have been contributed by airlines from the seven major industrialized countries. The revenues generated could be made available to an international fund for the promotion of sustainable development.

72. Unfortunately, most innovative financing mechanisms that are under discussion require further study in order to assess their feasibility. The same applies to the establishment of a multilateral forum to promote the coordination of fiscal and financial policy reforms for sustainable development.

4. Financing of sectoral clusters

73. It will be necessary to continue reforming the financing of sectoral clusters such as health, freshwater, human settlements, toxic chemicals and hazardous wastes and make greater efforts at developing mechanisms for financing the transfer of environmentally sound technologies. The focus should be on ways and means of improving the access of developing countries to international and national financial resources, the development of tailor-made financial instruments and general domestic policy reforms in support of resource mobilization, including a much greater reliance on user charges.

74. Human health is a principal objective of sustainable development and is vital to its achievement. Cost recovery, cost containment (by emphasizing preventive care over curative services) and other domestic sources must be major sources of the necessary funds, with ODA, serving as an essential catalyst. Cost recovery, however, faces the difficulties that population's willingness to pay is usually higher for curative services than for preventive services, and that ability to pay is severely limited for the disabled and poor, who account for a high proportion of those requiring health services. Higher income groups may need to bear more of the burden of public health-care funding. Health care requires predictable funding. In turn, financial resources on a sustained basis require a reorientation from costing disease (budgeting for treatment of a particular disease) to marketing health (emphasizing prevention and allocating resources to health care in line with the productive services it provides). Investments under Agenda 21 not directly related to health-care programmes, e.g., investments that promote income growth, poverty reduction and pollution reduction, can provide some of the most cost-effective means of achieving health care benefits.

75. In many developing countries, people are willing to pay for water but the majority of the population does not have access to safe and reliable supplies. The development of new water supply systems and the rehabilitation of existing ones, together with relevant institutional strengthening measures, would contribute to reducing the incidence of water-borne diseases. It would also improve the financial performance of water suppliers and, indirectly, the public sector.

76. Internalization of external costs provides a principle to follow in financing investments related to human settlements, freshwater, and toxic chemicals and hazardous wastes. For example, transportation-related fees (e.g., road pricing) can be used both to encourage the use of transportation methods that generate less pollution and congestion and to generate the funds necessary for investments in systems more consistent with sustainable development.

77. Similarly, effluent charges, which have been used with success in several developing countries, can be used to discourage additional pollution of freshwater resources and to generate funds for the clean-up of existing pollution problems. Revolving funds were used successfully to finance the National Sanitation Plan in Brazil. More complete cost recovery in water supply systems would promote water conservation and raise funds for system expansions and improvements. However, measures must be taken to ensure that changes in the

structure of water rates do not impose additional burdens on the poor or make it too expensive for them to afford clean water.

78. In the case of toxic chemicals and hazardous wastes, steps must be taken to ensure better compliance with international conventions. Moreover, the prices of toxic chemicals and compounds that generate hazardous wastes typically do not reflect the full environmental costs related to their use and disposal. Under the polluter pays principle, producers should be responsible for the safe disposal of their waste products. Deposit legislation, under which the users of such inputs pay a deposit that is refundable only when they account for the safe disposal of the chemicals and waste, provide one possible mechanism for making the user financially responsible for safe use and disposal. The international community should consider ways of assisting developing countries to obtain effective technology for addressing problems related to toxic chemicals and hazardous wastes.

B. Proposals for action

79. Proposals for action related to this section are brought to the attention of the Commission in the report of the Inter-sessional Ad Hoc Open-ended Working Group on Finance (see E/CN.17/1994/10).

III. TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGIES, COOPERATION AND CAPACITY-BUILDING.

A. General considerations

80. The period since the first meeting of the Commission on Sustainable Development has been marked by a keen interest on the part of all countries in the transfer of environmentally sound technologies. Developed countries have committed themselves to ensuring that developing countries get the kind of technology they need to protect the environment. For their part, developing countries are making serious efforts to make greater use of sounder and more sustainable technologies, despite their limited resources. It is widely recognized that, while technology and its inappropriate use has caused many of the world's environmental problems, environmentally sound technology is a critical element in addressing these problems. This is particularly true of improved process technologies that increase the efficiency of industrial processes and ensure that waste is captured and recycled or treated as inputs or products for other processes.

81. The Government of Norway and UNCTAD sponsored a pivotal workshop at Oslo in October 1993 on the transfer and development of environmentally sound technologies. This meeting focused on conceptual and policy issues related to transfer, on supply and demand-side issues of the technology-transfer process and on identifying priority elements for an action programme. The meeting had a high level of expert participation, which made the focus of the discussion pragmatic and specific.

82. The Governments of Colombia and the United States of America jointly sponsored a workshop on transfer of environmentally sound technology, cooperation and capacity-building, which was held at Cartagena from 17 to 19 November 1993. The meeting focused particular attention on the sector-specific aspects of technology transfer in the context of energy efficiency and liquid waste management. The discussion of these two sectors provided useful insights into the generic issues of technology transfer.

83. Both meetings laid a solid foundation for the Inter-sessional Ad Hoc Open-ended Working Group on Technology Transfer and Cooperation, mandated by the Commission at its first session. The report of the Working Group is before the Commission for consideration at its second session (E/CN.17/1994/11). These inter-sessional processes have framed the debate on technology transfer over the intervening months, pointing to the importance of the dialogue that has taken place outside the formal framework of the Commission.

84. The High-level Advisory Board on Sustainable Development also considered in some detail new approaches to technology transfer and its financing (see E/CN.17/1994/13). The Board gave special consideration to the ways in which government and the business community can cooperate within a framework of appropriate enabling conditions with a view to attracting private sector investment. The Board recognized that such an approach must take place within a policy context and regulatory framework that guides the market and ensures solutions that are both socially and environmentally appropriate. It was recognized, however, that the ability of countries to attract foreign direct investment varies considerably and is particularly weak in much of sub-Saharan Africa and the least developed countries elsewhere. Technology transfer in those countries is likely to depend on ODA, as is support for technology related to public sector activities of water supply and waste disposal.

85. Governments of both developed and developing countries have moved forward on practical programmes to promote technology transfer and cooperation. Technology transfer is an important policy theme for development cooperation among many developed countries and is becoming one of the main criteria for assessing project proposals.

1. Developed country experience

86. Several developed country Governments are making greater use of existing international clearing-houses, such as the International Cleaner Production Information Clearing-house (ICPIC) of UNEP, which identifies waste-reduction methods, upcoming events, documents, cleaner production experts and alternative information sources. Some Governments are also making use of UNEP's INFOTERRA as an in-country focal point for environmental information exchange and referral service. It helps to identify and describe, inter alia, national vendors of pollution-control equipment, energy-efficient technologies, services and equipment.

87. The Government of Japan helped UNEP establish an International Environmental Technology Centre which will play a key role in promoting the transfer of environmentally sound technologies to developing countries and

countries with economies in transition. This Centre is equipped with a database of environmentally sound technologies from countries all over the world and promotes training, consulting, surveys and research. It also handles information on technology for the sustainable environmental management of cities, freshwater lakes, marshes and river basins. Another country has established three National Environmental Technology Advancement Centres to provide technical, managerial and financial expertise to small and medium-sized enterprises that develop and commercialize environmental technologies.

88. Several developed countries are concerned with energy technologies, energy-efficiency programmes and energy research. The United States helped to establish the World Energy Efficiency Association (WEEA) which will serve as a world-wide clearing-house for information on energy-efficiency programmes, technologies and measures. The United States of America also adopted a National Energy Policy Act, which aims to facilitate the transfer of renewable energy technologies and services to developing countries. A collaborative partnership with the Government of India in science and technology seeks to foster innovation in the electric power sector.

89. The public energy research programme of Finland focuses on energy production and supply, including new technologies for combustion and gasification, combined with environmental research and energy conservation. Energy conservation research has been focused on developing technologies for various energy-consuming sectors such as construction and industrial production. These research efforts have resulted in energy sector products and services that are highly competitive internationally. The Government of Norway has completely reorganized its research council system and additional positions have been established at the universities for professors to concentrate their research on environmental issues. Transfer of environmentally sound technologies will likely be a key priority on the research agenda. The use of remote sensing for the study of desertification and erosion is a topic of joint research between a developed and a developing country.

90. The Commonwealth Secretariat, through its environment and science and technology programmes, provides, at the request of and financed by member Governments, technical assistance to developing country members aimed at strengthening their capacities to properly apply science and technology in solving environmental problems (e.g., remote-sensing techniques for managing natural resources, technologies for increasing energy efficiency, waste management and appropriate integrated crop protection techniques for the efficient control of pests). Particular emphasis is given to the dissemination of information on environmentally sound technology assessment, adaptation and management, through training programmes and advisory services. The Commonwealth Network of Information Technology for Development (COMNET-IT) has considerable potential to enhance dissemination of information on environmentally sound technologies among member countries.

91. The OECD Development Assistance Committee has responded directly to the need for approaches and mechanisms for implementing the UNCED agreements on institutional capacities, capacity-building and financial arrangements for environmentally sound technology cooperation. The DAC members, in January 1994, agreed on a common frame of reference for the wide range of actors in developed

and developing countries, with particular attention to lessons from aid, enabling conditions and implications for respective actors. Effective technology transfer, cooperation and capacity-building for sustainable development builds on the earlier examination by DAC of technological change in the least developed countries. 12/ A working paper that is intended to guide sectoral work will be revised as work progresses on different sectoral needs and as more analysis is done on actual experiences. As part of the attention to sectoral needs, OECD, jointly with UNEP and the United Nations Industrial Development Organization (UNIDO), is exploring ways that DAC donors might assist developing countries to encourage the use of technologies for cleaner industrial production.

92. The Government of Canada has started an Environmental Technology Commercialization Programme. It is an $80 million fund for the demonstration and commercialization of new environmental technologies as well as the development and demonstration of resource and energy conservation programmes. The Government of Norway is financing the transfer of know-how programmes in waste minimization and cleaner production strategies.

93. There are a large number of capacity-building and training programmes being sponsored by developed countries for the benefit of developing countries and countries in transition. The Government of Belgium in particular is fostering scientific cooperation between several countries of Central and Eastern Europe on environment and technology issues. More than 100 fellowships have been provided in specialized research programmes.

94. On the finance side, the Government of Finland has a pre-mixed concessional credit scheme which has been used for transferring environmentally sound technologies, particularly pulp and paper, energy production and waste-water treatment technologies, to developing countries. Because of new rules, more concessional credits will be extended to projects in the areas of infrastructural development and environmental investments. Increasing attention is being paid to the environmental aspects of projects financed by pre-mixed concessional credits. Finland also has a Fund for Industrial Development Cooperation, which was established to promote economic and social development in developing countries by transferring human and material resources. The Fund's main instruments are equity participation, loans, guarantees and the financing of feasibility and other pre-investment studies. The bulk of the funds have been used for forestry, forest industries, energy and transportation.

2. Developing country experience

95. Several developing countries have not yet benefited from the transfer of technology and many have not yet been able to organize necessary studies to assess national experience with technology transfer. For many, human, technical and financial resources are still not adequate, imposing severe restraints on domestic capacity to meet Agenda 21 requirements.

96. Malaysia chairs a Consultative Group on Technology Management, which is a decentralized, cooperative network comprising technology managers, economists, planners, environmentalists, lawyers, bankers, engineers and senior corporate

executives. Financial support for the programme on science and technology management has been requested from international sources and some developed countries have responded.

97. The African Regional Centre for Technology (ARCT) reports that, in its effort to enhance regional technological capability, the Centre continues to deal with a host of technology-related issues, which include but are not limited to policy, funds, linkages, external assistance, environmental impact, social preference and cultural heritage, and private sector participation.

98. Technology transfer, for instance, plays an important role in the implementation of its activities. The Centre's philosophy on transfer of technology is based on: (a) technology needs assessment and (b) technology acquisition, adaptation, optimization and development, and diffusion.

99. The above implies transfer of hardware and services; transfer of skills for operation and maintenance of production systems; and transfer of technological capacity, including design and reverse engineering. According to ARCT, technology transfer, commercialization of technological research results and the process of technological change, as a whole, have not taken firm root in many African countries for a number of reasons.

100. National official technology policies that could guide technology development and promotion are rare. Furthermore, the focal points of the technology executing organs of Government are in a state of constant uncertainty, with rapid changes of status and direction. The organs are also plagued by a series of problems including a lack of policy and irregular as well as inadequate funding. There is also a lack of general political will and a lack of commitment to technology as a vital strategic variable for development. The above, in combination with other factors, has led to the waste of human resources owing to brain drain and unbalanced manpower development. The general population prefers imported technologies to locally generated ones. Thus, commercialization of locally generated research and development (R&D) results becomes extremely difficult.

101. Very often, African researchers and industrialists do not have the appropriate scientific conditions, owing to the non-existence of a well-organized scientific and technological community that participates actively in solving development problems. These researchers are generally isolated and affected by the absence, in their own country, of valid interlocutors in their areas of specialization. In the same way, information is inadequate. Furthermore, the participation of African researchers in international scientific events (seminars, symposia, congresses etc.) is most often hindered by the lack of financial means to cover registration, travel and/or subsistence fees. This results in their almost chronic absence from the forums in which scientific and technological world events are being discussed.

102. Moreover, the limited possibilities of national markets, the complementarity of resources (e.g., cereals, horticulture, livestock, sea products and forestry) according to environmental specificities (e.g., Sahelian, equato-Guinean, coastal and equatorial zone) and the scarcity of resources

(human, physical and financial) make it particularly important to avoid duplication and to promote subregional, regional and international cooperation.

3. Countries in transition experience

103. While reports from countries with economies in transition are limited, it is clear that many of these countries are dealing with old and, in many cases, outdated industrial technologies that are marked by high energy use and high material consumption per unit of output, with limited pollution control and consequent adverse impacts on the environment. New industrial technologies are being introduced very slowly owing to the lack of financing. Special attention is being given in several countries to energy production and consumption, with particular emphasis on energy use rationalization and conservation and development of new technologies that rely on new and renewable energy resources. Attention is also being given to the transportation sector, agriculture and waste management.

104. In sum, the issue of transfer of environmentally sound technologies is one of the topics of Agenda 21 that is getting widespread and serious attention by most countries and international organizations. More needs to be done in terms of collecting better information about how and which technologies are being transferred. A great deal of technology transfer is taking place through foreign direct investment and there is an urgent need to develop better sources of information and reporting on what is being done and by whom.

B. Proposals for action

105. Proposals for action related to this section are brought to the attention of the Commission in the report of its Inter-sessional Ad Hoc Open-ended Working Group on Technology Transfer and Cooperation (see E/CN.17/1994/11).

IV. DECISION-MAKING STRUCTURES

A. Institutional arrangements to follow up the United Nations Conference on Environment and Development

106. Chapter 38 of Agenda 21 addresses the institutional structure necessary for the implementation of decisions taken during the Rio Conference. Emphasis is given to the institutional arrangements within (a) the United Nations system, (b) national Governments and (c) non-governmental organizations and major groups. The first two of these are discussed below. Major groups and non-governmental organizations are addressed in a separate section of this overview.

1. United Nations system

(a) General Assembly

107. Consistent with paragraph 38.9 of Agenda 21, the General Assembly, taking into account the agreement to undertake an overall review of Agenda 21 in 1997, called upon the Commission on Sustainable Development to monitor and review the implementation of Agenda 21. 13/

(b) Commission on Sustainable Development

108. At the request of the General Assembly, 13/ the Economic and Social Council set up a high-level Commission on Sustainable Development as a functional commission of the Council, to ensure effective follow-up to the Conference, to enhance international cooperation and rationalize the intergovernmental decision-making capacity for the integration of environment and development issues, and to examine progress in the implementation of Agenda 21 at the national, regional and international levels. The Commission, which meets annually, is composed of 53 Member States. 14/

(c) High-level inter-agency coordination mechanism

109. In paragraph 38.16 of Agenda 21, the need for a high-level coordination mechanism under the direct leadership of the Secretary-General to ensure coordinated system-wide response to the follow-up to UNCED was stressed and it was recommended that this task be given to the Administrative Committee on Coordination (ACC). The Conference also recommended that ACC consider establishing a special task force, subcommittee or board on the implementation of Agenda 21.

110. Immediately after the Conference, the Secretary-General established an ad hoc task force of ACC. Upon recommendation of the task force, ACC, at its second session in 1992, decided to establish the Inter-Agency Committee on Sustainable Development as a subsidiary body, to identify major policy issues relating to the follow-up of UNCED by the United Nations system and to advise ACC on ways and means of addressing them so as to ensure effective cooperation and coordination of the United Nations system in the implementation of Agenda 21. Participation in IACSD is at the level of senior officials. It is open to all ACC members, but the core membership comprises UNEP, UNDP, ILO, FAO, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO), the World Bank, the World Meteorological Organization (WMO) and the International Atomic Energy Agency (IAEA). The Department for Policy Coordination and Sustainable Development chairs the Inter-Agency Committee.

111. IACSD has met three times since its creation. The most recent meeting took place from 2 to 4 March 1994. IACSD has designated specific organizations of the United Nations system as task managers for each of the chapters of Agenda 21. The task managers are to establish a network of collaboration and information exchange, maintain intensive interaction and contact within the United Nations system, catalyse joint activities and programmes and develop common strategies. IACSD adopted an agenda for its task managers consistent

with the Commission's multi-year thematic programme of work. Consequently, at its third session, IACSD reviewed the report of the task managers for the relevant chapters of the cross-sectoral clusters as well as for toxic chemicals, hazardous wastes, freshwater, human settlements and health. It identified a number of areas in which collaborative or joint actions could be taken either to fill existing gaps or to strengthen the ongoing work of the system.

112. In addition, ACC has noted that Agenda 21 and the Commission on Sustainable Development are having a profound and far-reaching effect on the programmes and priorities of the organizations of the United Nations system. Currently, they are undertaking an intensive review of their work programmes, reordering their priorities and, wherever feasible, shifting resources in order to concentrate on assisting countries in meeting the key objectives of Agenda 21 in their respective areas of competence.

(d) High-level Advisory Board on Sustainable Development

113. In response to Agenda 21, paragraph 38.18, and the endorsement of the General Assembly, 15/ the Secretary-General appointed the High-level Advisory Board in July 1993 to give broad consideration to issues related to the implementation of Agenda 21, taking into account the multi-year thematic programme of work of the Commission, and to provide expert advice to the Secretary-General and, through him, to the Commission, the Economic and Social Council and the General Assembly.

114. The first meeting of the Board, in September 1993, was largely organizational. The second meeting, in March 1994, focused on three broad themes 16/ and gave particular emphasis to the need for new linkages. These include global through regional to national and subnational institutions, linking Government to the world of business, industry and commerce, in partnership for technology transfer and cooperation. It also refers to linking the institutions of the United Nations system to one another and to non-governmental entities in the world of science, environment, sustainable development, humanitarian relief, business, industry and commerce, labour and many other sectors of society.

115. For its third meeting, in October 1994, the Board has decided to focus on the following three topics: (a) linkages between economic, social and political development in a changing world, with an emphasis on food, population growth and migration, and trade and environment; (b) capacity-building, focusing on value-based education for sustainability; and (c) concrete ways of forging alliances.

(e) Secretariat support structure

116. Effective 1 July 1993, the Secretary-General of the United Nations established the Department for Policy Coordination and Sustainable Development, as one of three new departments at Headquarters in the economic, social and related fields. This new Department provides substantive support for the Economic and Social Council and the Commission on Sustainable Development, as well as to specific negotiating processes launched by the General Assembly, such as the Intergovernmental Negotiating Committees for a Framework Convention on Climate Change and for the Elaboration of an International Convention to Combat

Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa. The Department also provides support to the High-level Advisory Board on Sustainable Development and other expert bodies. It assists the Secretary-General in the exercise of his responsibilities for system-wide coordination through the substantive servicing of ACC and its subsidiary machinery, including the Inter-Agency Committee on Sustainable Development, and it monitors the implementation of Agenda 21, ensuring effective follow-up to UNCED, including preparations for the Global Conference on the Sustainable Development of Small Island Developing States.

2. Country experience

117. In the responses provided by member States, a number of important trends related to decision-making for sustainable development were discerned, and these are discussed below. The spirit of innovation has encouraged countries to provide information on steps being taken. While statistically one cannot speak of the respondents as "representative", they provide models for decision-making structures.

(a) Sustainable development policies and plans

118. Sustainable development and environmental management plans are being established at the national level and, in many cases, at the district/provincial and local levels. Some of these plans are policy frameworks; others set specific targets and goals. Most are comprehensive and cross-sectoral. In some cases, sectoral environmental plans have been created on the basis of the overall plan, but the opposite is also true. Existing sectoral plans have been integrated into a single national plan. Some of the plans are designed for implementation in the near future; some are embedded in five-year plans; and some are projected over a period of a decade. In some cases, countries are carrying out comprehensive reviews of the consistency of their existing policies and plans with the activities called for in Agenda 21.

119. Many developing countries are, however, faced at times with conflicting pressures for the preparation of national sustainable development strategies, national environmental action plans, national conservation strategies and other international requests for centralized plans to deal with environment and development issues. There is a need to rationalize these planning efforts at the national level to ensure efficient use of limited resources. United Nations system organizations, such as UNDP and the World Bank, in particular, are examining ways in which strategic planning can be consolidated and streamlined to avoid duplication of efforts.

120. Several countries have also established national plans to comply with the more recent and anticipated international sustainable development agreements, including those concerned with biodiversity, desertification, forests and climate change.

121. Policy frameworks and plans are increasingly being supported by the necessary legal framework, and much of the existing environmental legislation is under review. However, support to developing countries for the strengthening of

their capacity to establish national legal frameworks for sustainable development is greatly needed.

122. Approximately one third of the countries that responded strongly supported the use of environmental impact assessment at both the decision-making and the project level. The Government of Sri Lanka, for example, noted that it had established environmental impact assessment cells and oversight committees in all of its project-approving agencies.

(b) Economic instruments and environmental accounting

123. Several countries have initiated environmental taxes and charges. In Hungary, a tax on gasoline is the source of an environmental fund. In the Netherlands, new environmental taxes cover fuels, uranium, groundwater and waste, and a levy on ammonia is being introduced. Several countries are reviewing waste disposal and examining policy instruments to encourage recycling.

124. The importance of environmental accounting was emphasized, as was the need to develop indicators for sustainable development that are both easy to understand and applicable on an international level. In the Netherlands, national indicators are used for the National Environmental Policy Plan, published every four years. The future course of reporting on the implementation of Agenda 21 can be greatly enhanced with the development of sound sustainable development indicators.

(c) National structures

125. Many countries have established inter-ministerial bodies to coordinate the work of all ministries in sustainable development. In some cases, these bodies are chaired by the Prime Minister, or his/her equivalent, but most are chaired by Ministers of the Environment. Norway has two national coordination bodies - one for sustainable development within the country, and the second for international environmental questions. Malaysia has several federal-state coordinating mechanisms for specific issues related to Agenda 21. Designated "Green Ministers" for each department have produced "green housekeeping" strategies in the United Kingdom, with efforts to develop environmental management systems at local and central levels by the end of 1994. A few of the countries have also appointed high-level advisory panels, both standing and ad hoc, to advise the Government.

(d) Public participation and information

126. The ability of the public - of individual citizens - to participate in decision-making for sustainable development is considered to be extremely important in many cases. Some countries have established ad hoc task forces of individuals to assist them in making decisions on specific issues. Round tables - at federal, provincial and local levels - are used to build consensus among representatives of important groups and sectors and to discuss candidly environment-economy issues. In the United Kingdom, a Citizen's Environment Initiative is communicating between the Government and citizens. The Government of Iceland has established a National Environmental Assembly, which will meet

regularly and serve as a forum for exchanging views regarding sustainable development. The creation of corresponding environmental assemblies at the local level are also being encouraged. Legislation that guarantees the right of the public to have access to information on environmental affairs is also becoming common.

127. The need to improve access to information on sustainable development at local, national and international levels was emphasized. The Government of Japan underlined the need to study cooperation for the promotion of global-scale integration of geographic information. The Government of the Netherlands noted that it has established a network of experts, known as Green Planners, to exchange information on the structure and content of environmental plans and strategies. The Government of Canada indicated that it is developing an information system to identify and communicate information about the implementation of Agenda 21.

B. International legal instruments and mechanisms

128. Information on legal instruments that were open for signature at Rio, namely, the Framework Convention on Climate Change and the Convention on Biological Diversity, as well as on the International Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa, recommended in Agenda 21, is provided in the addendum to this report.

129. Other recent developments in international law relevant to Agenda 21 include:

(a) Basel Convention on the Transboundary Movement of Hazardous Wastes. On 25 March 1994, the Conference of the Parties adopted a ban on all hazardous waste exports, including for recycling, beginning 31 December 1997. The export of hazardous wastes produced in any of the OECD countries to any non-OECD country for final disposal is banned with immediate effect;

(b) United Nation Convention on the Law of the Sea. This Convention will enter into force on 16 November 1994. At that time, the Secretary-General will be called upon, inter alia, to assist in the establishment of two new bodies, the International Seabed Authority to administer the deep seabed regime, and the International Tribunal for the Law of the Sea. He will also be responsible for setting up and servicing the Commission on the Limits of the Continental Shelf.

130. The Government of Austria is sponsoring an International Symposium on Environmental Law, from 14 to 16 April 1994, which is expected to provide an input to the work of the Commission in the area of international legal instruments.

131. Furthermore, a few countries provided suggestions for areas in which new international agreements might arise. These include: (a) environmental destruction during military conflict; (b) effective management of fish stocks on the high seas; (c) converting the forest principles into an international convention. Emphasis was also placed on early adoption of the Nuclear Safety

Convention and on further studies for coordination of activities in existing mechanisms for dispute settlement.

Proposals for action

132. Many developing countries are faced at times with conflicting pressures for the preparation of national sustainable development strategies, national environmental action plans, national conservation strategies and other international requests for centralized plans to deal with environment and development issues. There is a need to rationalize both the international requests for such plans and the planning efforts at the national level to ensure better use of limited resources.

133. Capacity-building and technical support to developing countries needs to be enhanced in order to strengthen their capacity to review and update their national legal frameworks for sustainable development.

134. Environmental impact assessment is recognized as an essential tool for decision-making and project evaluation. There is a need to further strengthen countries' capacities to carry out effective impact assessment methodologies.

135. The work on environmental and sustainable development indicators needs to be accelerated to improve the reporting process with respect to the implementation of Agenda 21 as well as national sustainable development strategies.

136. There is a need to improve access to information on sustainable development, at the local, national and international levels, and legislation should be encouraged that ensures the public's right of access to information on environmental affairs.

V. ROLES OF MAJOR GROUPS

137. The relationship of the Commission on Sustainable Development to major groups 17/ is described in chapter 38 of Agenda 21. It includes, among other things, receiving and analysing inputs from major groups on Agenda 21 implementation at all levels; enhancing dialogue between these groups and the Commission; designing an open and effective mechanism of participation; and expanding the role of major groups in the United Nations system (paras. 38.13 and 38.43). Furthermore, chapters 23 through 32 of Agenda 21, covering nine major groups, contain additional suggestions on the particular supportive relationship the Commission, the United Nations system and Governments may establish with each group.

138. The summary review below focuses on: (a) inputs received by the Secretariat from major groups on the 1994 themes for review by the Commission and (b) the extent of relevant "supportive relationship" with governmental and intergovernmental bodies. A more detailed review of the role and contribution of major groups to Agenda 21 implementation can be found in the background paper prepared by the Secretariat.

A. Contributions of major groups to the thematic progress review reports

139. Official submissions of reports by major groups to the thematic progress review for 1994 (involving both sectoral and cross-sectoral themes) were fewer than expected. At the time of writing, the Secretariat had received formal thematic submissions from nine groups, of which two were from groups based in developing countries. Some groups among the nine submitted multiple thematic reports as well as other written material relevant to Agenda 21 in general. Altogether, about 40 groups made written submissions, of which 13 were from groups based in developing countries. Some of the written submissions involved policy and programme proposals, information on the group's activities in general, and requests for information or financial support for various planned projects under Agenda 21.

140. The apparent lack of quantity does not, however, indicate an absence of major groups in various national or international efforts to implement Agenda 21. Although the term "major groups" and the present exercise of reviewing the activities of major groups are new, non-governmental involvement in environment and development is not.

141. The Secretariat, and the United Nations organizations in general, monitored dozens of NGO newsletters, other relevant publications and several electronic networks, and participated in NGO-organized conferences and other meetings. This monitoring exercise confirmed that there is a great deal of ongoing NGO and other major group activity as follow-up to Agenda 21. Lack of written submissions from major groups, therefore, appears to be more relevant to other factors than to lack of interest, commitment or involvement. Among those factors are lack of human and financial resources (primarily on the part of developing country major groups) and lack of clarity on how the United Nations system and Governments will operationalize the activities in the major groups chapters of Agenda 21, particularly given the upcoming review by the Economic and Social Council of NGO participation in the United Nations.

142. A significant reason for the lack of written inputs is that many major groups place greater priority on fieldwork than on report-writing. The latter requires a reallocation of scarce human and financial resources and a reorientation of priorities, which are not easily justified given the absence of a clearer understanding of how and to what extent their reports are likely to influence the Commission process.

B. Support for major groups at governmental and intergovernmental levels 18/

143. The preamble to section III, chapter 23, of Agenda 21 identifies two main objectives in this context: implementing Agenda 21 requires broad public participation in decision-making, and, to accomplish this, there is a need for new forms of participation. 19/ Since there is no generic chapter on "major groups", the objectives of the preamble are considered for this purpose.

144. The Secretariat received no inputs from major groups assessing their level of participation in decision-making at the national or international level. The content of the term "broad public participation in decision-making" may need to be operationalized at the national and international levels to generate the needed inputs in the future.

145. The reports received from organizations of the United Nations system indicate some emerging positive trends in terms of "new forms of participation", including participation in decision-making, if the latter is defined as participation in programme design and planning through formal committees or reliable consultation mechanisms. The effectiveness of these trends is yet to be seen.

146. A number of problem areas need to be dealt with in order to meet the objectives presented in the preamble to section III. Among these are (a) the lack of clear "participation" criteria, particularly given that the major groups community is highly heterogeneous and constantly changing; and (b) institutional limitations primarily on the part of intergovernmental organizations in being able to accommodate greater major group participation.

147. It is, however, likely that the emerging trends will increasingly become the rule rather than the exception. Overall, both governmental and intergovernmental institutions increasingly acknowledge the actual and potential contributions of some or all of the nine major groups to sustainable development. For example, many national reports received indicate the importance of the particular role of local authorities in implementing local Agenda 21s, as well as in building participatory local coalitions and providing links between local communities and national institutions. Similarly, many national reports indicate the role and better education of women in family health care and the local management of toxic chemicals and hazardous wastes as a crucial link between international and national policies. Some United Nations agencies and Governments also suggest additional "major groups" such as the elderly, the disabled and the media. This might be interpreted as a commitment of governmental and intergovernmental actors to an evolving and growing involvement of major groups in sustainable development.

Proposals for action

148. There is a clear need to improve the quantity and quality of information relevant to the role and contributions of major groups. The Commission may wish to request that Governments and intergovernmental bodies provide information on the extent of involvement of major groups organizations. This information may include, among other things, the following areas:

(a) Involvement of major groups organizations in sustainable development activities, including participation in project design, implementation and evaluation at the national, regional and international levels;

(b) New and innovative ways to increase and enhance the quality and quantity of consultations with major groups organizations;

(c) Relevant indicators such as financial and other resource allocations, and successes and failures related to the institutional and/or technical assistance provided;

(d) Identification of bottlenecks and suggestions for future needs to overcome them.

149. The Commission may wish to request detailed and periodic surveys of major groups in sustainable development to identify the specific actors, assess needs and collect innovative suggestions.

150. The Commission might also consider requesting the production of a coordinated series of "success stories" related to the involvement of major groups in sustainable development efforts of United Nations agencies as well as of Governments. Such a series can be managed by the Secretariat and might be coordinated through the Inter-Agency Committee on Sustainable Development.

151. The Commission might consider a more proactive role with respect to the participation and contribution of major groups to Agenda 21 implementation. This might encourage seminars and round tables on the thematic topics of each year as well as relevant conferences co-sponsored by major groups, United Nations agencies and the Commission secretariat.

152. The Commission may wish to discuss how best to utilize inputs from major groups in the reports and other information, discussion and negotiation processes. An annual or biannual publication composed of inputs from major groups could be a beginning to signalling to major groups that their efforts and inputs are not ignored.

153. The Commission may wish to urge those United Nations agencies with field offices and other national or regional presence to increase their efforts to create and enhance support to major groups. Such support could include institutional, technical, managerial and financial assistance, training and transfers.

Notes

1/ Ulrich Hoffmann and Dusan Zivrovic, "Demand growth for industrial raw materials and its determinants: an analysis for the period 1965-1988", UNCTAD discussion papers, No. 50, November 1992.

2/ Recent trends in the use of material resources and their environmental consequences may be found in World Resources Institute World Resources 1994-95 (New York, Oxford University Press, 1994), in particular chap. 1, "National resource consumption".

3/ Ibid.

4/ Lee Schipper, "Energy efficiency and human activity: lessons from the past, importance for the future", paper prepared for the Symposium on Sustainable Consumption, Oslo, 19-20 January 1994.

5/ United Nations Conference on Trade and Development, "The effect of the internalization of external costs on sustainable development" (TD/B/40(2)/6 of 7 February 1994.

6/ David Pearce, "Sustainable consumption through economic instruments", paper prepared for the Symposium on Sustainable Consumption, Oslo, 19-20 January 1994.

7/ Paragraphs 40-42 are derived from Organisation for Economic Cooperation and Development, Integrating Environment and Economics: The Role of Economic Instruments (Paris, 1994) (forthcoming).

8/ Paragraphs 43 and 44 are derived from Organisation for Economic Cooperation and Development, Economic Instruments for Environmental Management in Developing Countries (Paris, 1993).

9/ United Nations publication, Sales No. E.91.IV.4.

10/ General Assembly resolution 39/248 of 9 April 1985, annex.

11/ Handbook of National Accounting: Integrated Environmental and Economic Accounting (ST/ESA/STAT/SER.F/61) (United Nations publication, Sales No. E.93.XVII.12).

12/ Organisation for Economic Cooperation and Development, Managing Technological Change in Least Developed Countries (Paris, 1991).

13/ General Assembly resolution 47/191 of 22 December 1992.

14/ See Economic and Social Council decision 1993/207 of 12 February 1993.

15/ General Assembly resolution 47/191, paras. 29-31.

16/ The three issues were (a) linkages between economic, social and political development in a changing world; (b) new approaches to finance and technology; and (c) the establishment of new partnerships between the United Nations system and other bodies active in the field of sustainable development.

17/ Agenda 21 identifies the following as "major groups": women, children and youth, indigenous people, non-governmental organizations, local authorities, workers and trade unions, business and industry, scientific and technological communities and farmers. "Major groups" is a term specific to Agenda 21 rather than a widely accepted term, referring to the set of actors that belong neither to the governmental nor to the intergovernmental spheres.

18/ The 139 activities listed in section III of Agenda 21 primarily refer to how the role of major groups can be enhanced, encouraged and supported through governmental and intergovernmental action at the local, national, regional and international levels through institutional, financial and human resource-sharing and transfers.

19/ According to the preamble, "new forms of participation" include, among other things, participation in environmental impact assessment procedures and in decision-making, with a direct effect on the immediate community; and access to information on environment and development held by national authorities such as information on products, activities and environmental protection measures.